

Amendments to the Claims

Please cancel claims 2, and 16-21, without prejudice or disclaimer.

Please amend claim 5, as indicated below.

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended): A method for identifying one or more complexes from a library of complexes, wherein said complex or complexes are selected for their ability to perform a preselected or desired function on a target molecule or by having a preselected structure, each complex being designated a morphatide, ~~said~~ the method comprising:

(a) preparing a library of morphatides, comprising:

(i) a scaffolding component selected from the group consisting of nucleic acid, nucleic acid like molecule or nucleic acid analog having one or more regions of randomized sequence;

(ii) one or more linker components; and

(iii) one or more agent molecules or type of agent molecules, linked to the scaffolding component by one or more type of linker components, wherein at least one of said agent molecules is selected from the group consisting of nucleic acid, nucleic acid like molecule or nucleic acid analog; and

(b) screening the library of morphatides prepared in step (a) by contacting, binding, or associating the morphatides with one or more suitable target molecules upon which a morphatide performs a preselected or desired function or to which a morphatide binds or associates through a pre-selected structure of said morphatide under conditions permitting said morphatide to perform said preselected or desired function on said target molecules or permitting said morphatide to bind or associate with said target molecules through the preselected structure; and

(c) separating the morphatides performing the preselected or desired function or binding or associating through the preselected structure, from the library of morphatides and

target molecules; thereby identifying one or more complexes from a library of complexes, wherein said complex or complexes are selected for their ability to perform a preselected or desired function on a target molecule or by having a preselected structure.

2. (Canceled)
3. (Original): The method of claim 1, wherein one or more of said linker components are reversible.
4. (Original): The method of claim 1, wherein one or more of said linker components cannot be amplified in vitro or in vivo.
5. (Currently Amended): The method of either of claims 1 or 2, wherein one or more of said scaffolding components associated with one or more of said linker components is amplifiable in vitro or [[.]] in vivo.
6. (Original): The method of claim 1, wherein said one or more of said linker components connected to one or more of said agent molecules cannot be amplified in vitro or in vivo.
7. (Original): The method of claim 1 or 2, wherein the entire morphatide is amplifiable.
8. (Currently Amended): The method of claim 1, wherein the linker component is selected from the group consisting of a ~~phenylboronic~~ phenylboronic acid linker, a thio linker, and a biotin-streptavidin linker.
9. (Original): The method of claim 8, wherein the thio linker is cysteine.

10. (Original): The method of either of claims 1 or 2, said method further comprising after step (b):
- (a) disassociating the scaffolding component of the complex performing the preselected or desired function from the agent molecule or molecules;
 - (b) generating modified scaffolding components;
 - (c) associating the different scaffolding molecules with agent molecules to generate different morphatides;
 - (d) rescreening the different morphatides by repeating steps (b) and (c) of claims 1 or 2 to identify new desired candidate morphatides.
11. (Original): The method of claim 10, wherein said modification of scaffolding components occurs via a random or directed mutagenesis technique.
12. (Original): The method of claim 11, wherein said random or directed mutagenesis techniques are selected from the group consisting of error-prone PCR or sexual PCR by performing a suitable number of cycles on the scaffolding components, resulting in one or more base changes in some percentage of the scaffolding components; cassette mutagenesis; and site directed mutagenesis.
13. (Original): The method of claim 10, wherein one or more of said agent molecules in step (c) are different from the agent molecules utilized in the morphatides of the prior round of screening for identification of morphatides performing the preselected or desired function.
14. (Original): The method of either of claims 1 or 2, for identifying a different morphatide further comprising:
- (a) separating the scaffolding components from the agent molecules;

- (b) performing a suitable number of cycles of error prone PCR on the scaffolding components, resulting in one or more base changes in some percentage of the scaffolding component;
- (c) reconnecting the scaffold component to the agent component; and
- (d) repeating steps (a) through (d) of claims 1 or 2, thereby identifying a different morphatide.

15. (Original): The method of claim 10, wherein the morphatide comprises a \ linker component, wherein in step (a) one part of a linker remains attached to the scaffold component and another part of the linker remains attached to the agent molecule and wherein in step (c) both parts of the linker are connected, thereby reconnecting the scaffold component to the agent component or wherein the connection between the agent molecule and the scaffolding component is by a plurality of the linker components.

Claims 16-21 (Canceled)

22. (New): The method of claim 1, wherein the scaffolding component comprises a variable core region flanked by primer sequence anchors, wherein two or more agent molecules are linked to the scaffolding component at an identical nucleotide at two or more positions of the variable core region, and wherein the identical nucleotide occurs less frequently in the variable core region than other nucleotides of the variable core region.

23. (New): The method of claim 22, wherein the identical nucleotide is a uridine residue that occurs at 5% of the positions within the variable core region.

24. (New): The method of claim 23, wherein a first primer sequence anchor comprises SEQ ID NO:1 and a second primer sequence anchor comprises SEQ ID NO:2.

25. (New): The method of claim 1, wherein the linker comprises phenylboronic acid.
26. (New): The method of claim 25, wherein the linker is formed by reaction of a salicylhydroxamic acid functional group covalently linked to the agent with a phenylboronic acid moiety linked to a nucleic acid agent.
27. (New): The method of claim 1, wherein two linkers are present on the morphatide and each of the two linkers are linked to both the agent and the scaffolding component at a 5-position of a uracil moiety of a uridine residue.
28. (New): The method of claim 1, wherein the agent binds thrombin.